

IN THE CLAIMS:

1. (Currently Amended) Monitoring system for monitoring the progress of neurological diseases, ~~especially for monitoring patients with disturbed motor function, characterized by~~ comprising

-- at least one observation station (3) with an electronic camera (9) for recording video motion pictures and devices (10) for marking an object field to be covered by the camera (9),

-- a storage device for the digital storage of video pictures of a patient, which are to be recorded at preselected intervals by the camera (9) in the ~~movement~~ observation station (3),

-- a video display device (7) for displaying the video picture sequence,

-- an image processing system for processing the video pictures recorded in time intervals to obtain a shortened video picture sequence, ~~and~~

~~-- a video display device (7) for displaying the video picture sequence.~~

wherein the system is intended for monitoring a large number of patients who visit the at least one observation station (3) at different times, and wherein the observation station (3) comprises devices (14) for automatic patient identification, and the storage device and image processing system are configured for

patient-specific image storage and processing in coordination with identification data.

2. (Currently Amended) System in accordance with Claim 1, ~~characterized by several~~ comprising a plurality of observation stations (3) and a central evaluation center, ~~which is~~ spatially separated from the observation stations, wherein the central evaluation center contains the video display device (7) [[,]] and [can] is configured to be connected with the observation stations for the purpose of data transmission.

3. (Currently Amended) System in accordance with Claim 2, ~~characterized by the fact that~~ wherein the central evaluation center consists of a computer, ~~preferably a personal computer~~ (4).

4. (Currently Amended) System in accordance with ~~any of Claims 1 to 3~~ Claim 2, ~~characterized by the fact that~~ wherein the observation station contains a computer unit (11) connected to the electronic camera.

5. (Currently Amended) System in accordance with Claim 4, ~~characterized by the fact that~~ wherein the computer unit (11) is provided for data communication with the central evaluation center (1) and contains the storage device and the processing system.

6. (Cancelled)

7. (Currently Amended) System in accordance with ~~any of Claims 1 to 6~~ Claim 1, ~~characterized by the fact that~~ wherein the

electronic camera (9) can be controlled by input into the patient identification device (14).

8. (Currently Amended) System in accordance with ~~any of Claims 1 to 7~~ Claim 1, ~~characterized by comprising~~ a programmable signaling device[[,]] which is carried by the patient and produces signals that remind the patient to take his medication and/or to go to the observation station.

9. (Currently Amended) System in accordance with Claim 8, ~~characterized by the fact that~~ further comprising devices (15, 20) ~~are provided~~ for automatic programming of the signaling device on the basis of input data.

10. (Currently Amended) System in accordance with ~~any of Claims 1 to 9~~ Claim 1, ~~characterized by the fact that~~ further comprising devices ~~are provided~~ for automatic coordination of observation times.

11. (Currently Amended) System in accordance with ~~any of Claims 1 to 10~~ Claim 1, ~~characterized by the fact that~~ wherein the image processing system is ~~designed~~ configured to go beyond sequencing to process the recorded images themselves.

12. (New) System in accordance with Claim 3, wherein the computer is a personal computer (4).